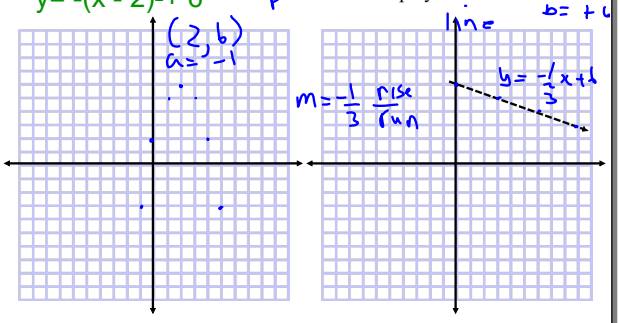
Opener Question

Graph the following equations

$y = a(x-h)^2 + k$

$y = -(x-2)^2 + 6$

Graph $y = -1/3x + 6$



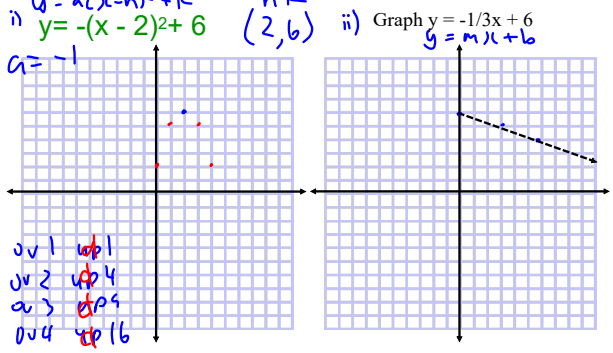
Feb 4-7:51 AM

3M Opener Question

Graph the following equations

i) $y = -(x-2)^2 + 6$

ii) Graph $y = -1/3x + 6$



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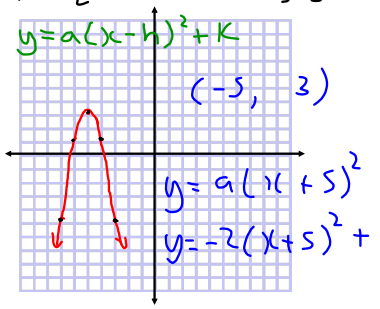
3M Opener Question

Write the eqn of the following graph

i)



$y = a(x-h)^2 + k$

$a = -2$

$(-5, 3)$

$y = a(x+5)^2 + 3$

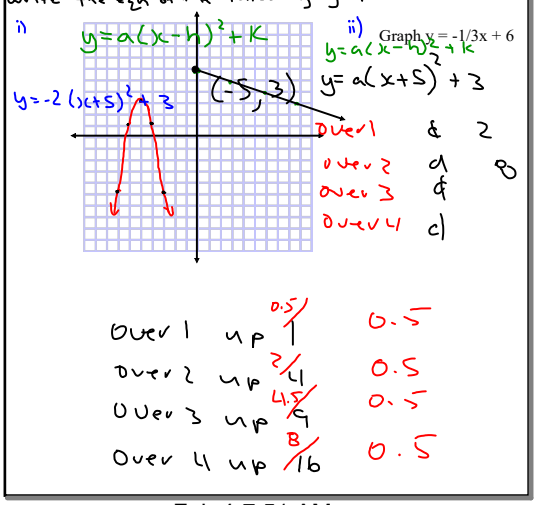
$y = -2(x+5)^2 + 3$

Feb 4-7:51 AM

3M Opener Question

Write the eqn of the following graph

i)



$y = a(x-h)^2 + k$

$y = -2(x+5)^2 + 3$

$(-5, 3)$

ii) Graph $y = -1/3x + 6$

$y = a(x+5)^2 + 3$

over 1 up 1

over 2 up 4

over 3 up 9

over 4 up 16

Over 1 up 1 → 0.5

over 2 up 4 → 0.5

Over 3 up 9 → 0.5

Over 4 up 16 → 0.5

Feb 4-7:51 AM

Sec 1.1 Characteristics of a Function

Terminology p6

Table of Values

x	y
1	2
2	4
3	6
4	8

x: ind variable

y: dep variable

Domain - set of values for x

i.e. 1-4

Range - set of values which describes the y variable

i.e. 2-8

Feb 4-1:55 PM

Function - a relation in which there is only one value of the dep variable for each value of the ind variable

(for every x there is only one y)

For a function, knowing the value of the ind variable enables you to predict the value of the dep variable

Feb 4-1:59 PM

2 Tests

1) Mapping Diagram p 6

Data A creates a scatter plot

Data B creates a function (only one y for every x) (linear)

2) Vertical Line Test

with a graph if a vertical line can be drawn through the graph such that for a given x there is more than one possible y => It is not a function

ie 2 < 3 p 10 < 11

Feb 4-2:03 PM

Representing Functions

R= real numbers (set of all decimals positive, negative or 0 terminating or non terminating)

W= whole numbers (does not include 0)

Domain & Range of a function

Feb 4-2:16 PM

Stating Domain - x variable

$D = \{ x \in R \mid x \neq 0 \}$

x (is a member of) the set of Real #s

$\in$ R

such that x is not equal to 0

$\mid$ $\neq$

ie Example 3 a) p 11

Feb 4-2:26 PM

Range

$R = \{ y \in R \mid 1 \leq y \leq 8.5 \}$

y is a member of real numbers such that y is greater than or equal to 1 but less than or equal to 8.5.

p 13-16 q. 2-4, 6-8, 10, 11, 15, 16

Feb 4-2:30 PM

6 a)

$D = \{ x \in R \mid 0 \leq x \leq 4 \}$

$R = \{ y \in W \mid 2 \leq y \leq 10 \}$

b) not a function

c) not a function

d) $D = \{ x \in W \mid 2 \leq x \leq 10 \}$

$R = \{ y \in W \mid y = 13 \}$

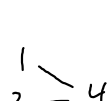
7a) $D = \{ x \in R \}$

$R = \{ y \in R \mid 1 \leq y \}$

Sep 6-9:17 AM

$D = \{ x \in W \mid 2 \leq x \leq 6, x \neq 2, x \neq 5 \}$

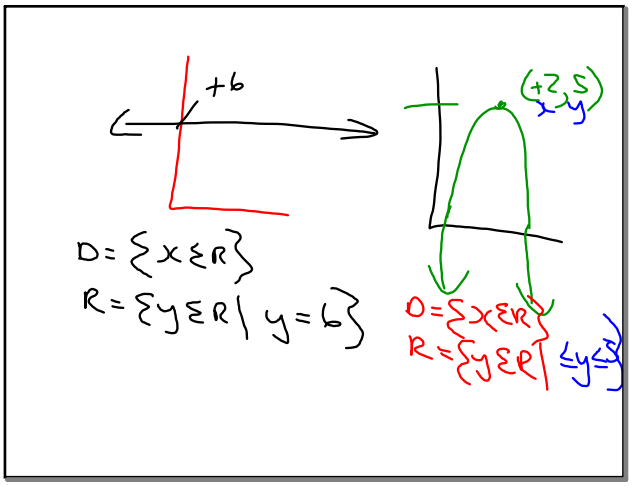
$R = \{ y \in W \mid 1 \leq y \leq 5, y \neq 3, y \neq 4 \}$



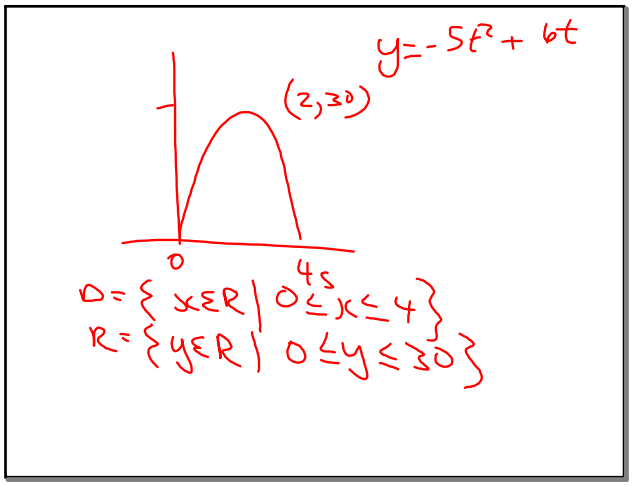
$D = \{ x \in W \mid 1 \leq x \leq 3 \}$

$R = \{ y \in W \mid y = 4 \}$

Sep 8-10:27 AM



Sep 8-10:45 AM



Sep 14-11:17 AM